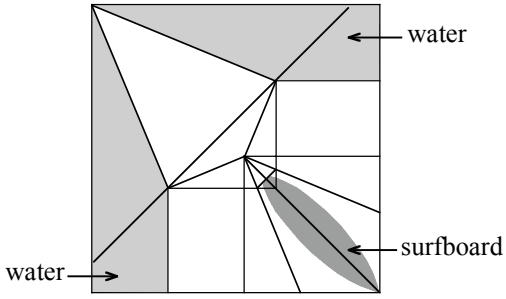
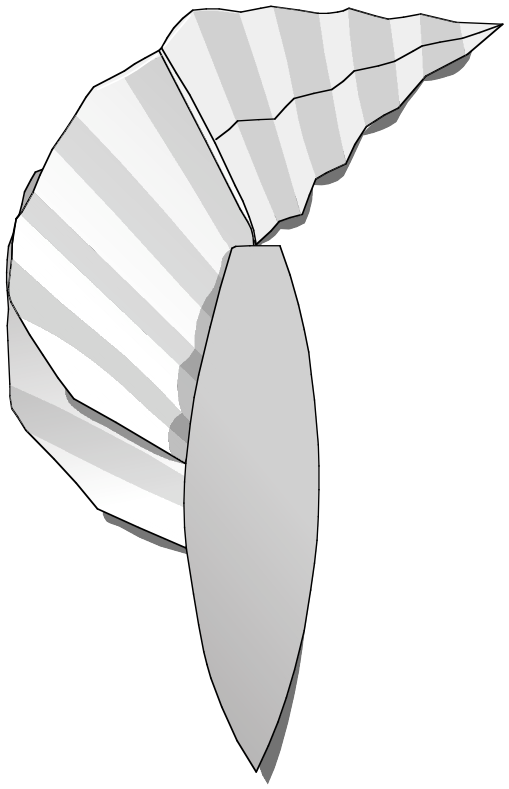
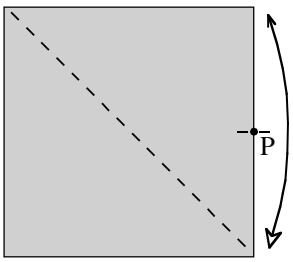
# Surfboard (and wake)

Created /2008
Difficulty / Intermediate
Time to Create / 30 minutes
Dimension / R= 0.55 for board length

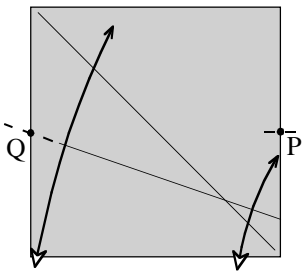


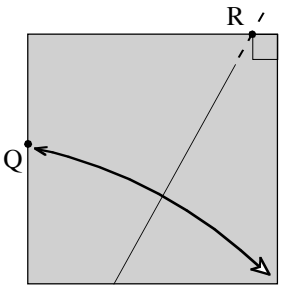
**Author's advice:** Use a bicolored square the same size as the surfer for a "short board". Choose one color for the surfboard and the reverse side color for the water.



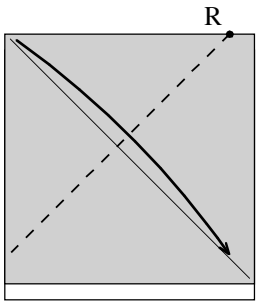

1. Valley-crease the diagonal and the midpoint of the right side on the surfboard side of the paper.



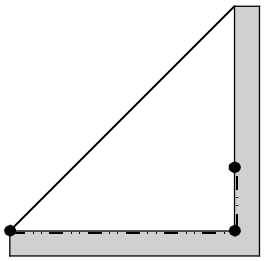

2. Place the bottom edge on point P and the bottom left corner on the top edge. Crease the left side at point Q.



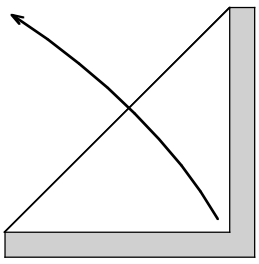

3. Place the bottom right corner on point Q and crease the top edge at point R.



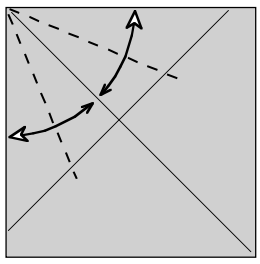

4. Valley-fold the top left corner to the diagonal through point R.



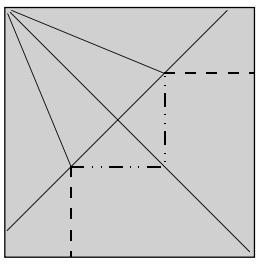
5. Mountain-fold the bottom layer between the dots using the edge of the top layer as a guide.



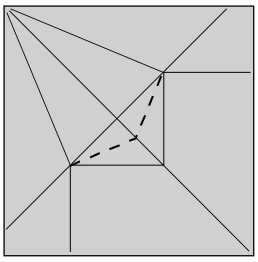
6. Unfold.



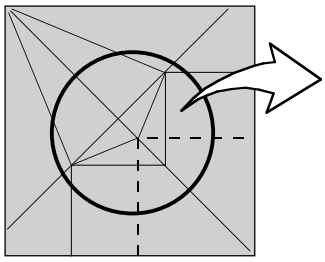
7. Valley-fold and unfold angle bisectors



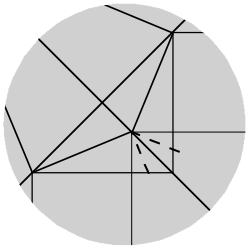
8. Valley and mountain-crease.



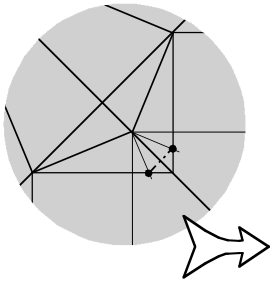
9. Valley-crease angle bisectors.



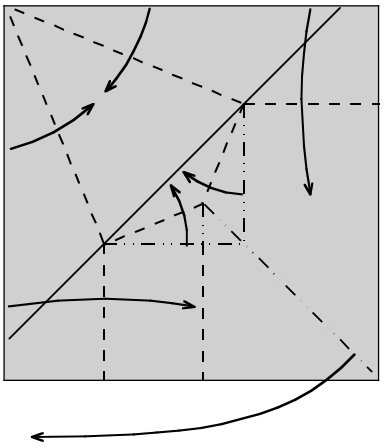
10. Valley-crease.



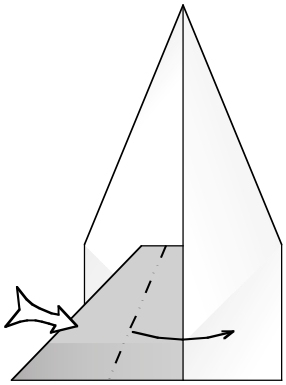
11. Valley-crease angle bisectors.



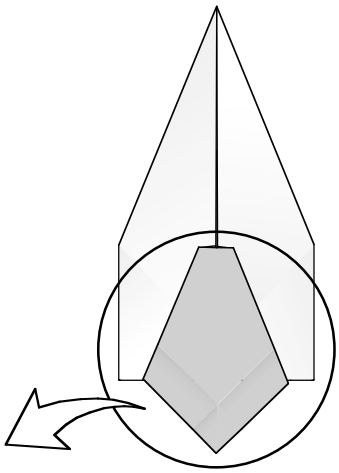
12. Mountain-crease between the dots.

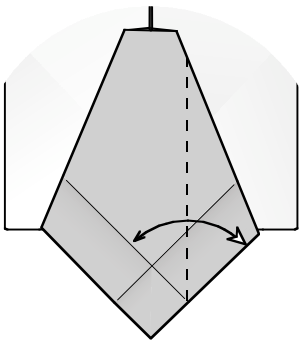


13. Collapse.

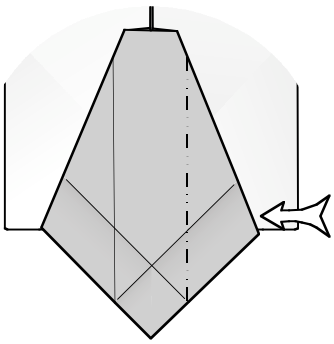


14. Squash-fold the surfboard on top of the water.

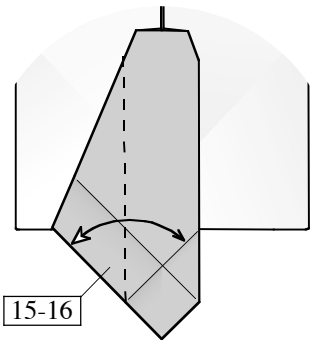




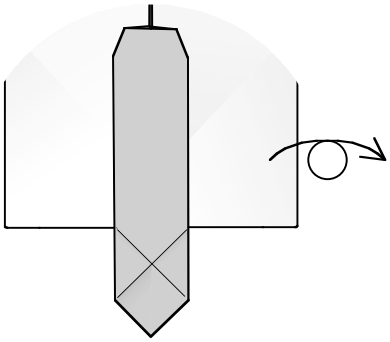
15. Valley-fold and unfold.



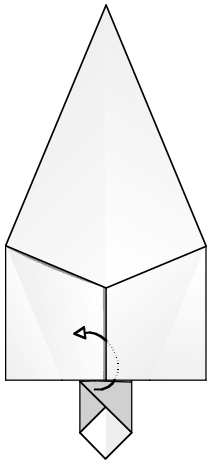
16. Inside reverse-fold edge.



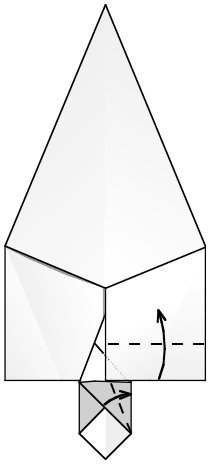

17. Repeat steps 15 and 16 on the other side. Place the reverse fold beneath the previous one.



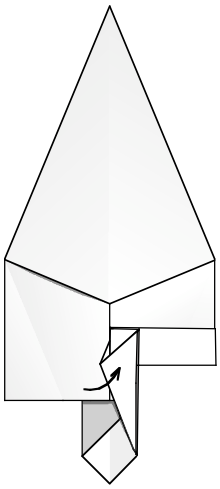
18. Turn the model over.



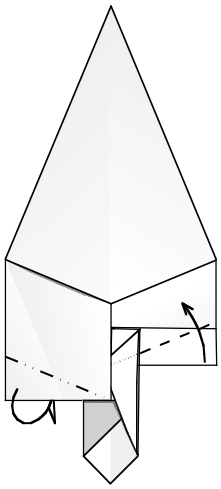
19. Put the indicated layer through the gap.



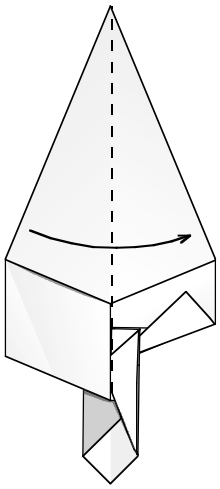
20. Swivel-fold. The horizontal valley fold is the crease of step 5.



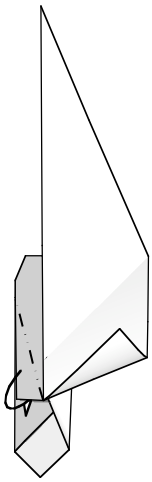
21. Put a layer on top.



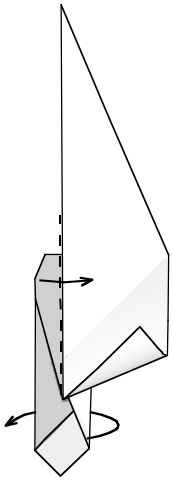
22. Mountain and valley-fold corners on lines parallel to edges above them.



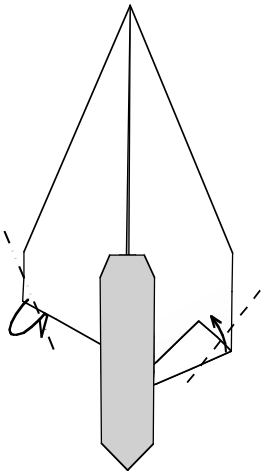
23. Valley-fold to the right.



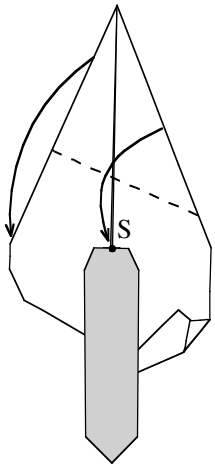
24. Mountain-fold part of a flap underneath.



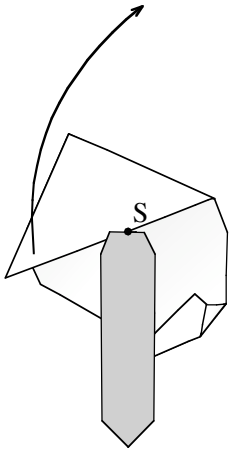
25. Swivel the surfboard to the right and let the hidden half of the water flap swing to the left.



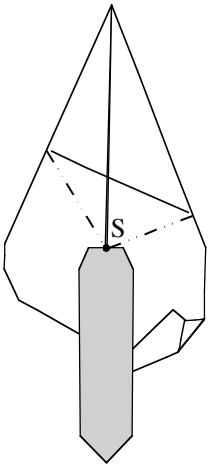
26. Mountain and valley-fold corners to round the wake.



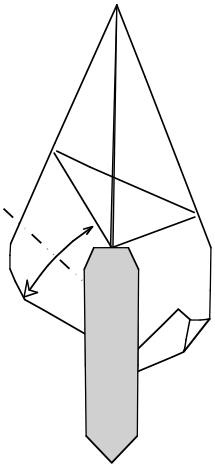

27. Valley-fold the top flap down. Line up the left edge. Place the right edge on point S.



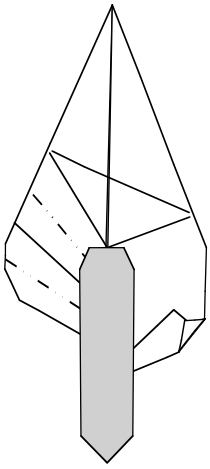

28. Unfold.



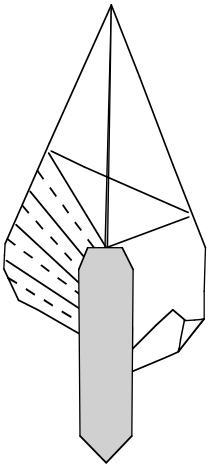

29. Connect point S and the ends of the last fold with mountain creases.



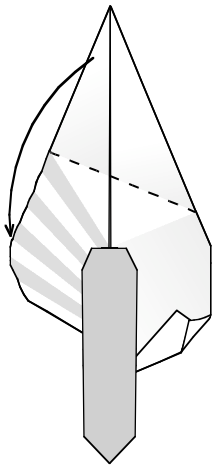
30. Bisect distance with a mountain crease.



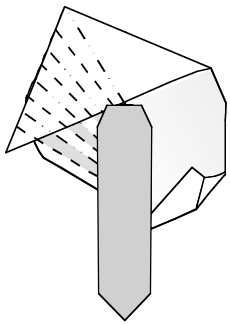
31. Bisect distances once more with moutain creases.



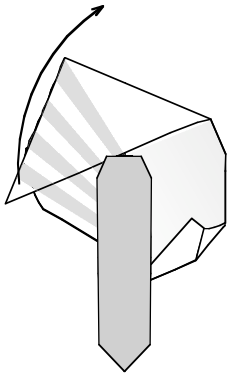
32. Bisect distances with valley creases.



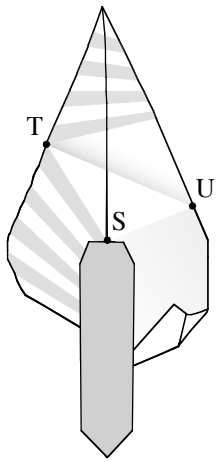
33. Fold the flap back down.



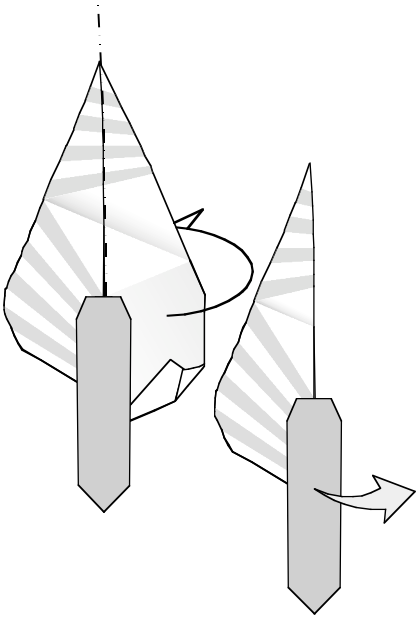
34. Redo creases through all layers.



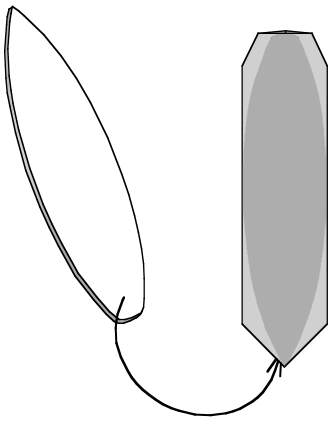
35. Fold the flap back up.



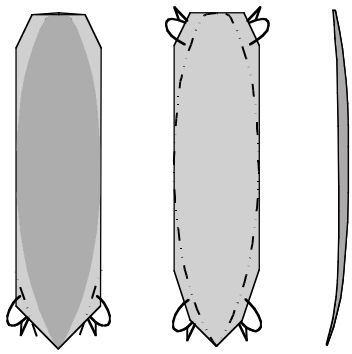

Define points T and U as the end points of the fold of step 27



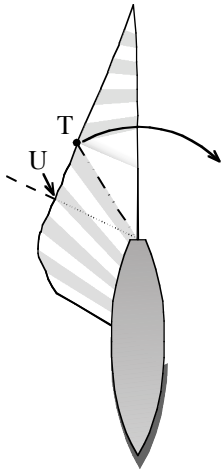
36. Mountain-fold the right side of the wake behind.



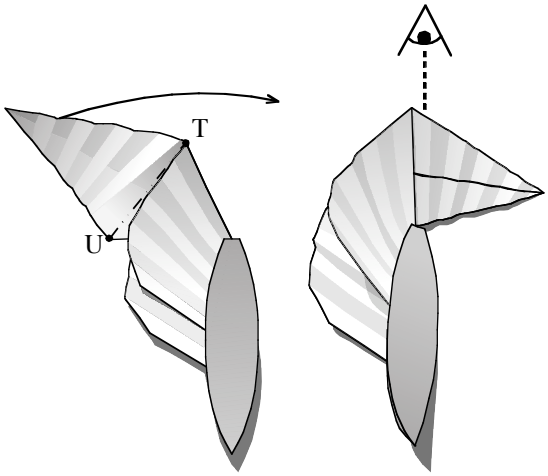
37. Cut out a surfboard from thick paper or cover stock. Make it as wide and long as the one in your model, Insert it in the pocket. This will be needed to mount your surfer on.



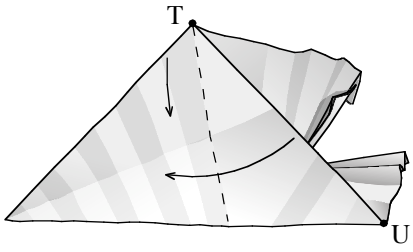
38. Mountain-fold corners behind. Then mountain-fold along the edges of your insert. The stern and bow will rise like the cross section on the right



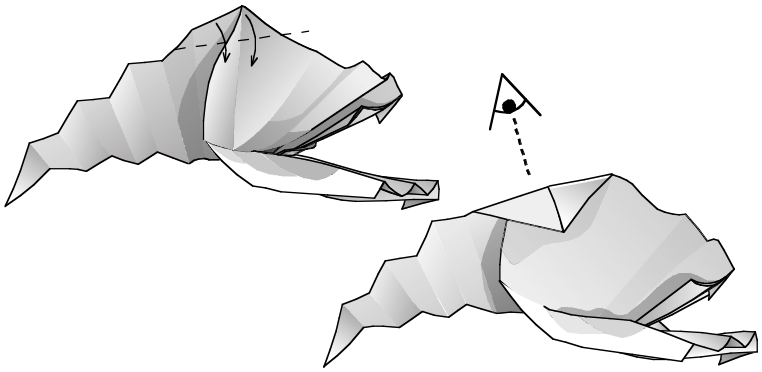

39. While holding point U on a flat surface, swing point T to the right. The model will be increasingly 3D.



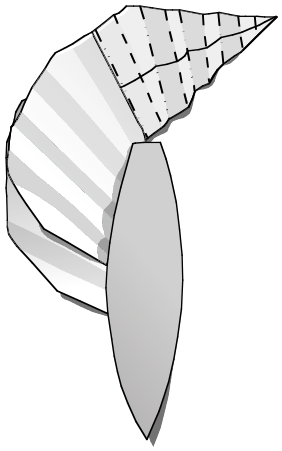

40. Mountain-fold the flap to the right through points T and U.



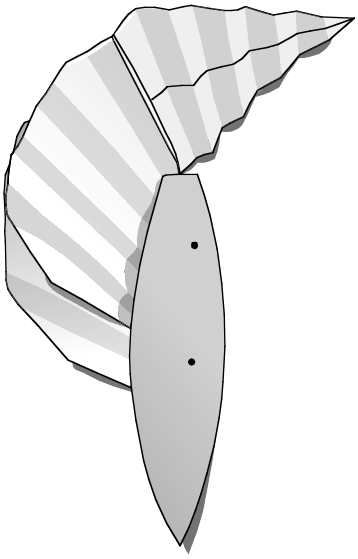

41. Bend the middle of edge TU to the left.



42. Valley-fold a corner down to lock the bended edge in place and to round the wake.

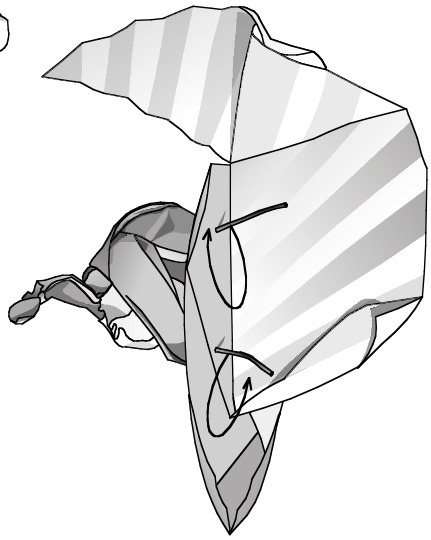


43. Reverse the direction of folds in the tail of the wake.

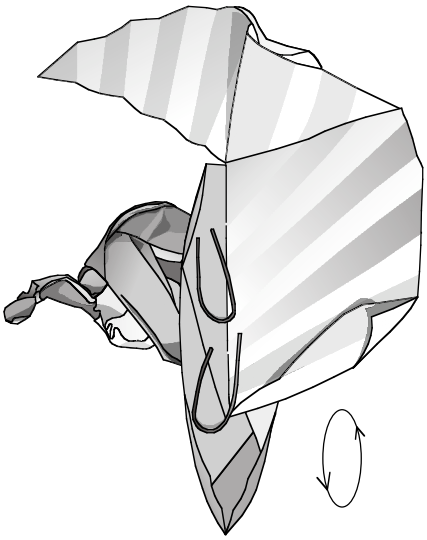


Assemble your surfer by making two holes through all layers of the surboard (including the stiff insert).

Put the wire armature through the holes and turn the assembly over.



Bend two loops in the wires that are flat on the bottom of the surfboard.



Turn the assembly back over and adjust as needed.